

Application Type Renewal
Facility Type Industrial
Major / Minor Major

**NPDES PERMIT FACT SHEET
ADDENDUM**

Application No. PA0013463
APS ID 994490
Authorization ID 1275435

Applicant and Facility Information

Applicant Name	<u>U. S. Steel Corporation</u>	Facility Name	<u>U. S. Steel Fairless Hills Facility</u>
Applicant Address	<u>1 Ben Fairless Drive</u> <u>Fairless Hills, PA 19030-5012</u>	Facility Address	<u>1 Ben Fairless Drive</u> <u>Fairless Hills, PA 19030</u>
Applicant Contact	<u>Brian Lasko</u>	Facility Contact	<u>David Buschmann</u>
Applicant Phone	<u>(412) 433-5917</u>	Facility Phone	<u>(215) 736-4063</u>
Client ID	<u>80062</u>	Site ID	<u>260845</u>
SIC Code	<u>3312</u>	Municipality	<u>Falls Township</u>
SIC Description	<u>Manufacturing - Blast Furnaces And Steel</u>	County	<u>Bucks</u>
Date Published in PA Bulletin	<u>September 25, 2021</u>	EPA Waived?	<u>No</u>
Comment Period End Date	<u>October 25, 2021</u>	If No, Reason	<u>Major Facility</u>
Purpose of Application	<u>Application for a renewal of an NPDES permit for discharge of treated Industrial</u>		

Internal Review and Recommendations

The draft NPDES permit was issued on September 8, 2021. It was published in PA Bulletin on September 25, 2021. We received comments on the draft NPDES permit from Jennifer Fulton of EPA through e-mail dated October 7, 2021.

We received the following comments from EPA.

1. Regarding MP 103:
 - a. 40 CFR Part 423.15(a)(10)(i) includes requirements for cooling tower blowdown. The quantity of total chromium and total zinc discharged in this waste stream is to be determined using the flow of cooling tower blowdown and the listed concentrations. Page 5 of the fact sheet calculates mass loads for these pollutants based on the entire flow of 2.442 MGD as opposed to cooling tower blowdown flow of 2.01 MGD. The limitations for MP 103 will need to be recalculated and revised in the fact sheet and permit.
 - b. 40 CFR Part 423.15(a)(10)(i) provides limitations for free available chlorine in cooling tower blowdown, but this parameter is not imposed in the permit. The permit provides limits for TRC, but the fact sheet does not an explanation as to why this parameter was utilized in the permit. 423.15(a)(8)(i) limits TRC for plants with a rated electric generating capacity of 25 or more megawatts; however, this is applicable to once through cooling water. It is unclear if once through cooling water discharges to MP103. The fact will need to clarify the applicable ELGs and pollutant parameters that are imposed in the permit.
 - c. While Part C of the permit includes the "no-detectable amount" requirement for the 126 priority pollutants except chromium and zinc, it does not include the requirement at 40 CFR 423.15(a)(10)(ii). The permit should be revised to include this requirement.
 - d. Part C of the permit will also need to include the NSPS at 40 CFR 423.15(a)(2) regarding no discharge of PCBs. As discussed, PADEP can provide a fact sheet discussion to document why PCB monitoring and PMP efforts related to the Delaware River PCB TMDL are appropriate. Additionally, PADEP will evaluate

Approve	Return	Deny	Signatures	Date
			Ketan Thaker / Project Manager	
			Pravin C. Patel, P.E. / Environmental Engineer Manager	
			Thomas L. Magge / Program Manager	

Internal Review and Recommendations

the need for influent PCB monitoring in an appropriate mechanism to evaluate influent vs. effluent PCB levels.

2. Regarding MP 403:
 - a. It is unclear why some of the ELG standards for the waste streams to MP 403 are being applied to MP 103, as opposed to MP 403. TSS, oil and grease, and pH are have standards for each applicable waste stream per 40 CFR 420.112(b), 420.102(a)(4), and 420.122(a)(1), and while these appear to have been adequately evaluated, the fact sheet doesn't explain why these TBELs were applied at MP 103.
 - b. 40 CFR 420.102(a)(4) And 420.103(a)(4) both include production-based limits for chromium and nickel, but mass-based limits were not evaluated and imposed at MP 403. It was discussed that PADEP would re-evaluate the TBELs for those pollutants and impose the appropriate limitations at MP 403. If limitations based on the technical development document are to be maintained in the permit, then the fact sheet would need to provide the justification. A discussion for the rationale behind limitations on copper using the technical development document should also be included in the fact sheet.
3. PADEP's current template language for 316(b) requirements (attached) includes some additional language that does not appear in this draft permit. PADEP may want to consider adding the "missing" language for clarity in the permit, if appropriate:
 - a. Part C.VI.E of the permit already requires the permittee to monitor the velocity at the screen at a daily minimum frequency. PADEP's template also includes that intake screen monitoring velocity monitoring results are to be submitted on the Cooling Water Intake Monitoring Supplemental Report as an attachment to monthly DMRs.
 - b. Part C.VI.G. of the permit doesn't include the requirement for the annual certification submission by January 28 of each year.

We addressed these comments through e-mail to Dana Hales of EPA on October 14, 2021 as below:

1. Regarding MP 103:
 - a. We will calculate mass loadings for Total Chromium and Zinc using cooling tower blowdown flow of 2.01 MGD and revise the final NPDES permit and Factsheet accordingly.
 - b. The Terminal Treatment Plant (MP 103) receives various waste streams from different sources. These includes (1) cooling tower blow down and water treatment blow down, housekeeping & stormwater from Fairless Energy (Dominion) with total flow of about 2.442 MGD, (2) Wastewater and filter back wash from water treatment plant, (3) Treated effluent flow of 0.856 MGD from Finishing Mill Treatment Plant from (MP 403). The total flow from MP 103 at the Terminal Treatment Plant is 3.75 MGD. Effluent limit for Total Residual Chlorine is calculated by using mass balance of 2.4 MGD flow from Fairless Energy while remaining 1.3 MGD of flow from various sources at 0.5 mg/l. The I-Max limit is kept at 0.5 mg/l, which is BAT. Calculating the TRC limit this way is more accurate and appropriate for treating various waste streams at Terminal Treatment Plant (MP 103).
 - c. We will include other requirements for cooling tower blowdown for NSPS 423.15 (a) (10) (ii) as you suggested in the final NPDES permit.
 - d. We will include other requirement in 423.15 (a)(2) that requires "There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid" in the final permit.
2. Regarding MP 403:
 - a. The treated effluent from Finishing Mill Treatment Plant (MP 403) goes to Terminal Treatment Plant (MP 103) for further treatment. TSS and Oil & Grease are required to be applied at MP 103 as it receives cooling tower blowdown from Fairless Energy. Therefore, we have applied TBEL for TSS, Oil & Grease, pH at MP 103.
 - b. We will calculate and include mass limits for Chromium and Nickel at MP 103. The effluent limits based on the technical development document are maintained in the permit as they were discussed with EPA and agreed upon during previous permit renewal.
3. 316 (b) Cooling Water Intake Structure
 - a. As suggested, we will include the language in Part C.VI.E regarding submission of intake screen velocity monitoring results as an attachment to monthly DMRs in the final NPDES permit.
 - b. We will add the language in Part C.VI.G. to include the requirement for the annual certification submission by January 28 of each year in the final NPDES permit.

Internal Review and Recommendations

We have made following revisions in the NPDES permit to address EPA comments.

- (1) On Page no. 9 of the permit we have revised limits for Chromium and Zinc based on cooling tower blowdown of 2.01 MGD instead of 2.4 MGD (2.01 MGD Cooling tower blowdown + 0.432 MGD from filter wash, HRSG blowdown, house-keeping and on-site stormwater).
- (2) On Page no. 13 of the permit, we have added mass limits for Chromium and Nickel that were not included in the draft permit.
- (3) On page no. 33, we have included other requirement Part C.I.I and J as recommended by EPA.
- (4) On page no. 45, we added one sentence regarding submission of Cooling Water Intake Monitoring Supplemental Report as an attachment to monthly DMRs to Part C.VI.E and added a line "by January 28 of each year" regarding annual submission certification to Part C.VI.G for the Cooling Water Intake Structure requirements as recommended by EPA.